Kimley-Horn
and Associates, Inc.

ATTACHMENT "A"

Suite 201
517 Fourth Avenue
San Diego, California
92101

External Memorandum

To: Labib Qasem

From: Dave Sorenson File: 095004.00

Date: December 11, 1996

Subj: Traffic Implications of Vista Sorrento Parkway Realignment

We have evaluated the traffic implications of the subject alignment. Our analysis assumes the realignment of Vista Sorrento Parkway as depicted on the revised tentative map and assumes a traffic signal installation at the new driveway onto Vista Sorrento Parkway. The following paragraphs summarize our key assumptions and findings of our analysis.

ROADWAY REALIGNMENT AND LAND USE ADJUSTMENT

Figure 1 depicts the revised Traffic Analysis Zone (TAZ) system for Torrey Hills. As shown in this figure, Vista Sorrento Parkway is the boundary between TAZs 726 and 731. The realignment of Vista Sorrento Parkway to the west causes certain land uses that were formerly located on the western side of Vista Sorrento Parkway (i.e., in TAZ 726) to be relocated to the eastern side of this facility (i.e., in TAZ 731). Figure 2 illustrates the new limits and internal access arrangements of TAZ 731. As shown in this figure, the land uses fronting Vista Sorrento Parkway would have one main access point (indicated by a break in the Vista Sorrento Parkway median) located roughly midway between "A" Street and "B" Street. Secondary access points would be provided at "A" Street east of Vista Sorrento Parkway and on Vista Sorrento Parkway south of "A" Street. Both secondary access points would be restricted to right-in/right-out access only. No inter-parcel access would be provided between the land uses fronting Vista Sorrento Parkway and those fronting "C" Street.

Table 3.2-1R, a revised exhibit from the Torrey Hills Traffic Impact Analysis (June 7, 1996), summarizes the updated land use and traffic generation characteristics of the project. As shown in this table, TAZ 726 would contain 237.95 thousand square feet (KSF) of Industrial uses comprising the Cooper development. Project land uses moved to TAZ 731 by the realignment of Vista Sorrento Parkway include

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310 KSF of Office/Industrial uses and 40 KSF of Support Commercial. The 340 multi-family dwelling units previously in TAZ 731 will remain with the Vista Sorrento Parkway realignment.

TRAFFIC VOLUME ADJUSTMENTS AND CAPACITY ANALYSIS

In order to estimate the traffic impacts of the Vista Sorrento Parkway realignment, the traffic patterns resulting from land use adjustments had to be determined. The following assumptions were formulated to guide the re-assignment of traffic:

1. Whereas the traffic generated by the former TAZ 726 loaded onto Vista Sorrento Parkway via two locations (i.e., the west leg of the Vista Sorrento Parkway/"A" Street intersection and a driveway located to the south), 100 percent of the remaining TAZ 726 traffic was assumed to access Vista Sorrento Parkway via "A" Street; no southern driveway is assumed.

2. The incremental additional traffic generated by TAZ 731 due to the realignment of Vista Sorrento Parkway was distributed to access points in accordance with the following distribution pattern:

   - To and from the north via Vista Sorrento Parkway: 75 percent
   - To and from the south via Vista Sorrento Parkway: 20 percent
   - To and from the east via "C" Street: 5 percent

3. No east/west inter-parcel access within TAZ 731 is assumed between the industrial development and the residential development.

Figure 3 depicts the revised Year 2010 peak hour intersection turning movement volumes for Scenario 1. The Vista Sorrento Parkway intersections with "A" Street and the TAZ 731 primary driveway were analyzed using standard procedures consistent with the previously-referenced traffic study. The capacity analysis worksheets are attached to this letter. The Vista Sorrento Parkway/"A" Street intersection will be characterized by LOS C conditions during both peak hours with the traffic adjustments resulting from the Vista Sorrento Parkway realignment, which is consistent with previous analysis. The Vista Sorrento Parkway/TAZ 731 primary driveway intersection would have good LOS C conditions during both peak hours analyzed. Refer to the attachments to this report for the worksheets documenting this analysis.

Figure 4 shows the recommended intersection turn lanes for the Sorrento Hills community.

SUPPLEMENTAL TRANSPORTATION IMPROVEMENTS

Table 3.5-1R, a revised exhibit from the previous traffic study, includes additional transportation improvements to be provided as a result of the preceding analysis.

Two new items have been added to this list. The first is the provision of a traffic signal at the Vista Sorrento Parkway/TAZ 731 primary driveway and the second is the provision of traffic signal interconnection and coordination along Vista Sorrento Parkway between Carmel Mountain Road and "B" Street.

Table 5.1-1 is a replacement transportation phasing plan for the project. While the realignment of Vista Sorrento Parkway did not cause a change in land use - only a shift in location of various uses, minor changes to the transportation phasing plan have occurred. These changes are related to development proposals that are likely to occur in the first stages of the phasing plan. The overall trip generation and therefore, the traffic impacts are unaffected by these changes to the phasing table. This transportation phasing table is applicable to the originally proposed project and the alternative project created by the Vista Sorrento Parkway realignment.

CONCLUSIONS AND RECOMMENDATIONS

The supplementary analysis described above identified the following conclusions and recommendations:

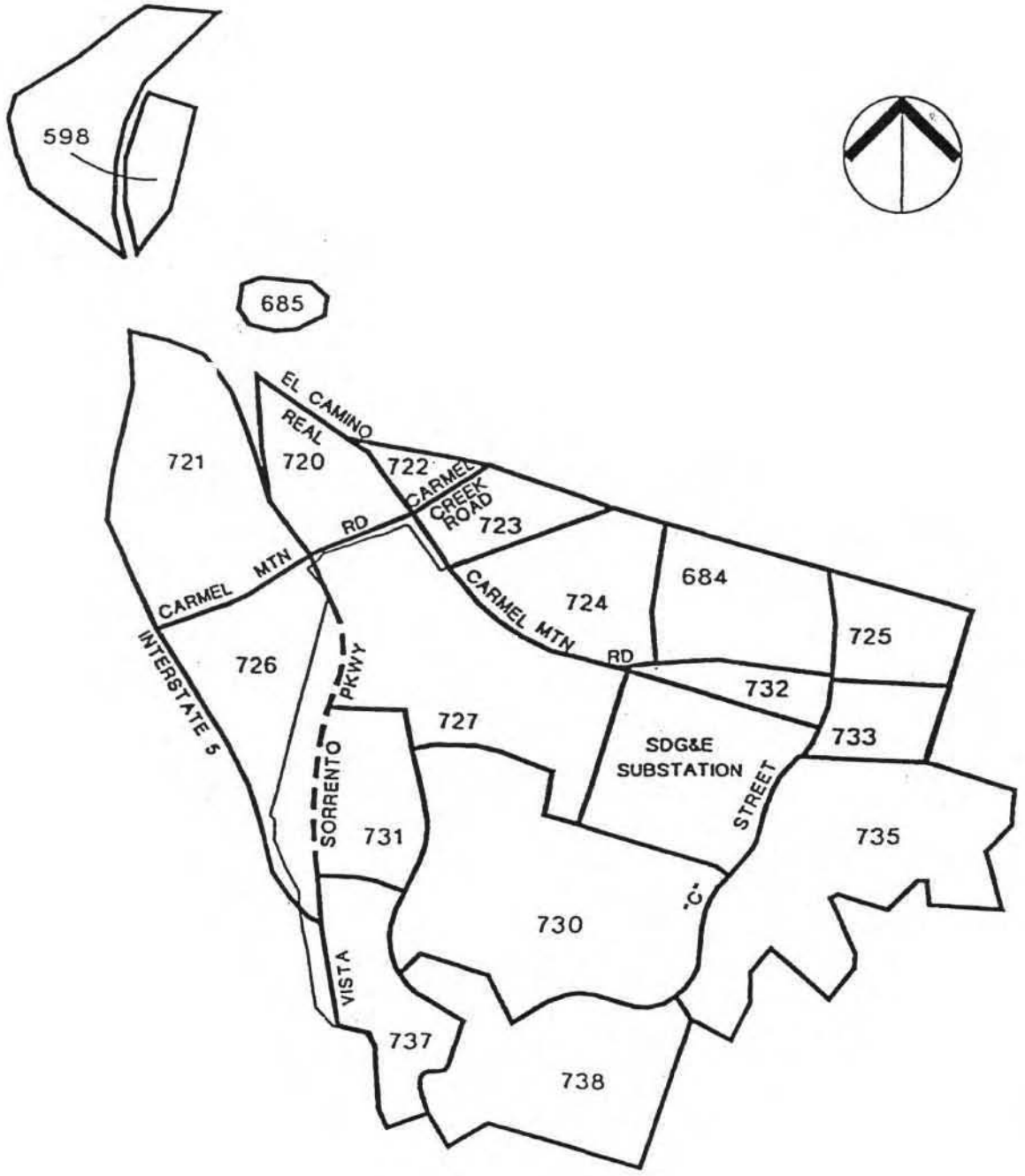
1. Provision of traffic signal control at the Vista Sorrento Parkway/TAZ 731 primary driveway will provide good LOS conditions during both peak hours.

2. Review of the tentative map indicated that there will be adequate spacing between the proposed Vista Sorrento Parkway/TAZ 731 primary driveway and the signalized intersections to the north ("A" Street) and the south ("B" Street).

3. It is recommended that traffic signal control be provided at the Vista Sorrento Parkway/TAZ 731 primary driveway intersection. It is further recommended that the Vista Sorrento Parkway traffic signals between Carmel Mountain Road and "B" Street be interconnected.

Please call me if you have any questions or comments.

cc: Bill Meyer, AGLD
Art Shurtleff, AGLD
Karen Ruggles, T&B
George Benton, CMB



LEGEND:

Vista Sorrento Parkway Realignment _ _ _ _

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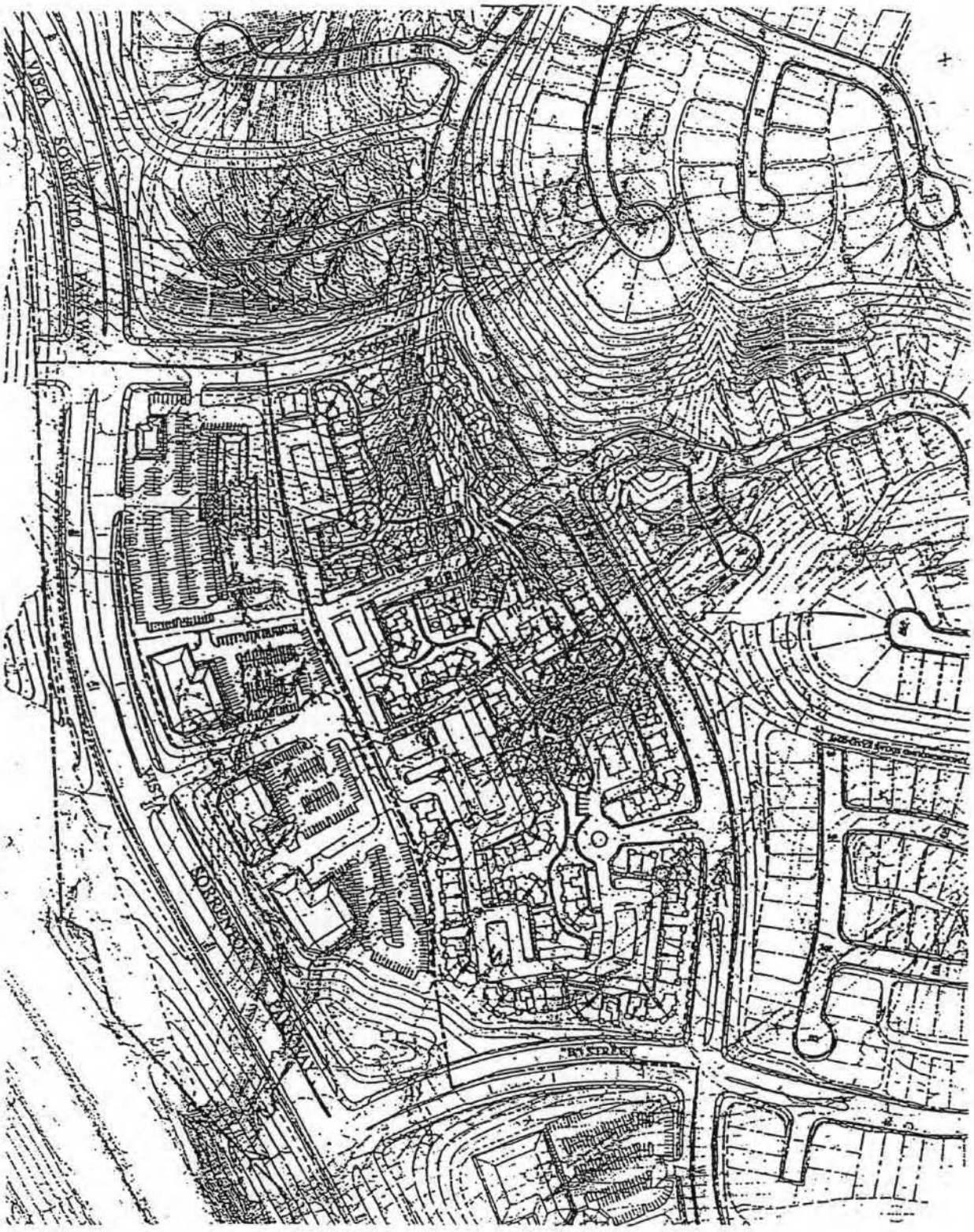
Traffic Analysis Zones

TORREY HILLS

FIGURE 1

KIMLEY-HORN and ASSOCIATES



Not to Scale

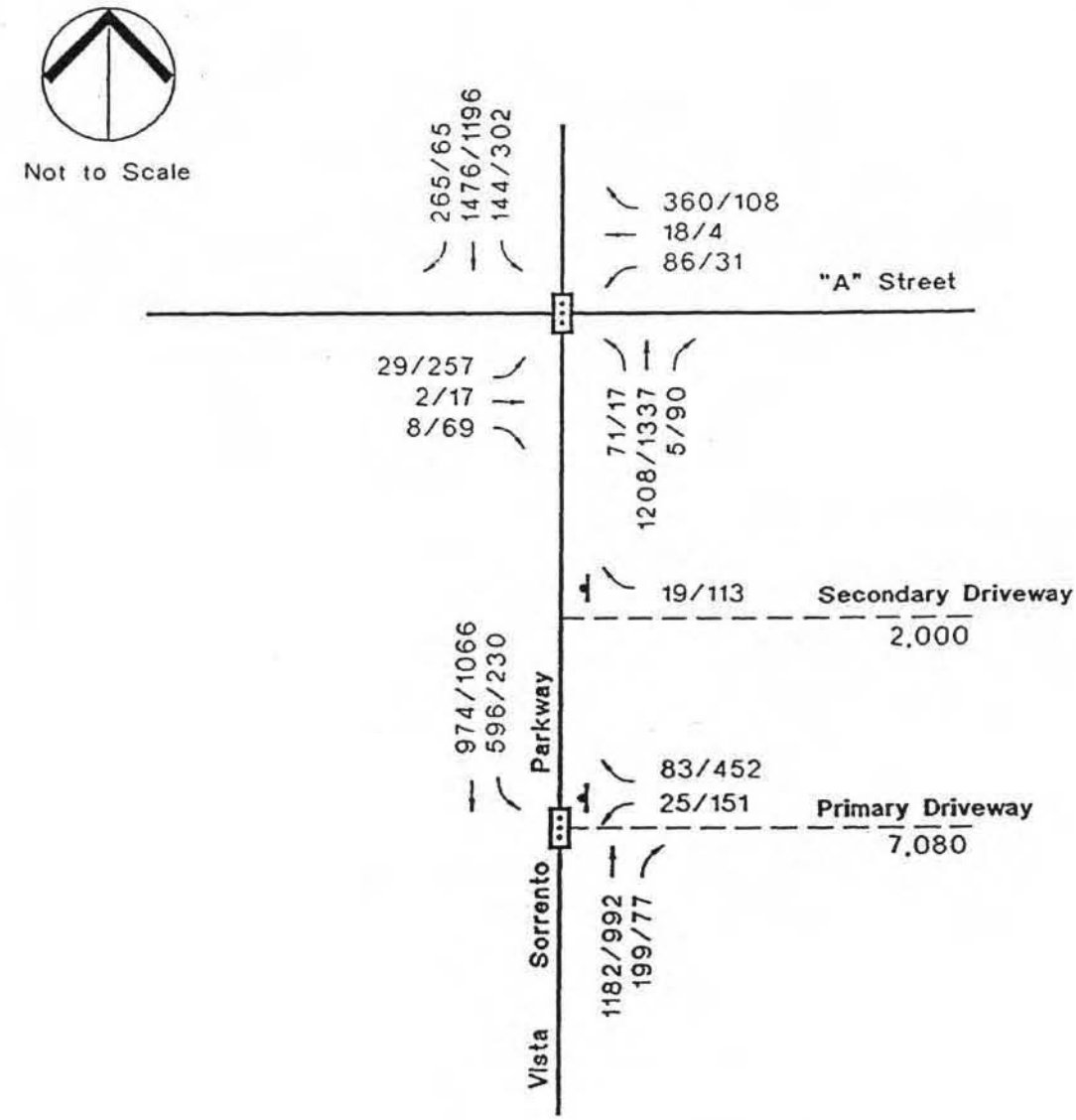
Revised
Vista Sorrento Parkway Realignment
TORREY HILLS
FIGURE 2

KIMLEY-HORN and ASSOCIATES

TABLE 3.2-1R
TORREY HILLS DAILY AND PEAK HOUR TRIP GENERATION
SUBTOTALED BY TRAFFIC ANALYSIS ZONE (CUMULATIVE RATE FOR RETAIL USES)

TAZ	LAND USE	AMOUNT	DAILY TRIP RATE		AM PEAK HOUR TRIPS			PM PEAK HOUR TRIPS		
				ADT*	TOTAL	IN	OUT	TOTAL	IN	OUT
598	Office/Corporate	440,066 SF	15 /KSF	6,601	990	891	99	990	99	891
598	Visitor Serving Comm.	36,580 SF	20 /KSF	732	110	99	11	110	11	99
				7,333	1,100	990	110	1,100	110	990
684	SF 4,000	121 DU	10 /DU	1,210	97	19	77	121	85	36
684	SF 5,000	37 DU	10 /DU	370	30	6	24	37	26	11
				1,580	126	25	101	158	111	47
685	Single-Family Dwelling	2 DU	10 /DU	20	2	0	1	2	1	1
720	Office	210,000 SF	20 /KSF	4,200	546	491	55	588	118	470
721	Office	210,000 SF	20 /KSF	4,200	546	491	55	588	118	470
721	Single-Family Dwelling	121 DU	10 /DU	1,210	97	19	77	121	85	36
721	Industrial	120,000 SF	15 /KSF	1,800	198	178	20	216	43	173
721	Industrial	42,070 SF	15 /KSF	631	69	62	7	76	15	61
				7,841	910	751	159	1,001	261	740
722	Courtyard	52 DU	10 /DU	520	42	8	33	52	36	16
723	Courtyard	143 DU	10 /DU	1,430	114	23	92	143	100	43
724	Courtyard	120 DU	10 /DU	1,200	96	19	77	120	84	36
724	SF 5,000	30 DU	10 /DU	300	24	5	19	30	21	9
				1,500	120	24	96	150	105	45
725	SF 5,000	83 DU	10 /DU	830	66	13	53	83	58	25
726	Industrial	237,930 SF	15 /KSF	3,569	393	353	39	428	86	343
727	SF 5,000	121 DU	10 /DU	1,210	97	19	77	121	85	36
727	Elementary School	4 AC	60 /AC	240	62	37	25	12	4	8
727	Park	16.2 AC	50 /AC	810	32	16	16	65	32	32
				2,260	192	73	119	198	121	77
730	SF 4,000	242 DU	10 /DU	2,420	194	39	155	242	169	73
731	Multi-Family	340 DU	8 /DU	2,720	218	44	174	272	190	82
731	Office/Industrial	310,000 SF	20 /KSF	6,200	806	725	81	744	149	595
731	Support Commercial	40,000 SF	72 /KSF	2,880	115	69	46	317	158	158
				11,800	1,139	838	301	1,333	498	835
732	Neighborhood Commer.	10,000 SF	72 /KSF	720	29	17	12	79	40	40
733	Neighborhood Commer.	120,000 SF	72 /KSF	8,640	346	207	138	950	475	475
735	Multi-Family	430 DU	8 /DU	3,440	275	55	220	344	241	103
735	SF 4,000	172 DU	10 /DU	1,720	138	28	110	172	120	52
				5,160	758	290	468	1,466	836	630
737	Office	220,000 SF	20 /KSF	4,400	572	515	57	616	123	493
738	SF 5,000	90 DU	10 /DU	900	72	14	58	90	63	27
TOTALS				65,123	6,374	4,466	1,908	7,853	2,860	4,993

* Average Daily Traffic Volume



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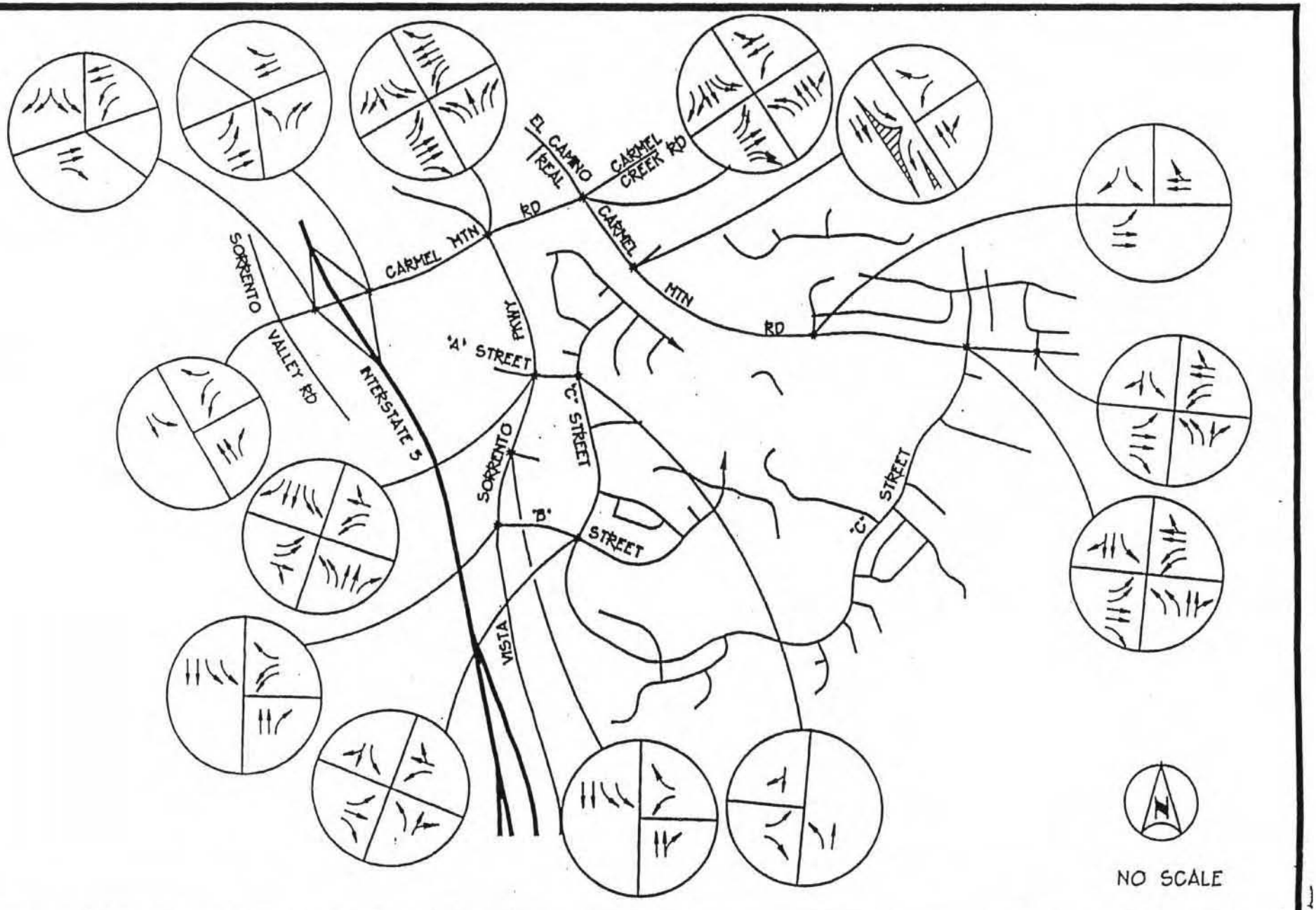
Year 2010 AM/PM Peak Hour Intersection Turning Movement Volumes, Vista Sorrento Parkway Realignment Scenario 1

TORREY HILLS

FIGURE 3

KIMLEY-HORN and ASSOCIATES



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TORREY HILLS
INTERSECTION LANE CONFIGURATIONS

FIGURE 4

TABLE 3.5-1R
SUMMARY OF TRANSPORTATION IMPROVEMENTS

Location	Improvement (a)	Status
Carmel Mountain Road		
I-5 - El Camino Real	Construct as six lane primary arterial	Completed
El Camino Real - E. Project Boundary	Construct as four lane major	Bonded for but not constructed
Vista Sorrento Parkway		
Carmel Mountain Rd. - Sorrento Valley Blvd.	Construct as four lane major	To be bonded for and constructed by project
"A" Street	Construct as four lane collector	To be bonded for and constructed by project
"B" Street	Construct as four lane collector	To be bonded for and constructed by project
"C" Street		
Carmel Mountain Rd. - "GG" St.	Construct as four lane collector	To be bonded for and constructed by project
"GG" St. - "A" Street	Construct as two lane collector	To be bonded for and constructed by project
Carmel Mountain Rd./Sorrento Valley Rd.	Provide traffic signal	Constructed
Carmel Mountain Rd./I-5 southbound ramps	Provide traffic signal	To be provided under Sorrento Hills Development Agreement; secured by letters of credit
Carmel Mountain Rd./I-5 northbound ramps	Provide traffic signal	To be provided under Sorrento Hills Development Agreement; secured by letters of credit
Carmel Mountain Rd./Vista Sorrento Pkwy.	Provide traffic signal	Constructed
Carmel Mountain Rd./El Camino Real/Carmel Creek Rd.	Provide traffic signal	Constructed
Carmel Mountain Rd./"Z" Street	Provide traffic signal	To be bonded for and constructed by project
Carmel Mountain Rd./"C" Street	Provide traffic signal	To be bonded for and constructed by project
Carmel Mountain Rd./Shopping Ctr. Access	Provide traffic signal	To be bonded for and constructed by project
Vista Sorrento Pkwy./"A" Street	Provide traffic signal	To be bonded for and constructed by project
Vista Sorrento Pkwy./"B" Street	Provide traffic signal	To be bonded for and constructed by project
"B" St./"C" St.	Provide traffic signal	To be bonded for and constructed by project
Vista Sorrento Pkwy./TAZ 731 Driveway	Provide traffic signal	To be bonded for and constructed by project
Vista Sorrento Parkway: from Carmel Mtn. Rd. to "B" St.	Interconnect traffic signals	To be bonded for and constructed by project
Vista Sorrento Pkwy./Sorrento Valley Blvd. (b)	Provide traffic signal	Provide traffic signal
Sorrento Valley Blvd./Roselle St. (b)	Provide traffic signal	To be bonded for and constructed by project

(a) Refer to Figure 3.1-2 for intersection lane geometrics

(b) Per Sept. 29, 1994 traffic study

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TABLE 5.1-1
TORREY HILLS
TRANSPORTATION PHASING PLAN

PHASE	LAND USE	AMOUNT	RATE	TOTAL ADT*	PEAK HOUR TRIPS AM PEAK TOTAL	AM PEAK IN	AM PEAK OUT	PM PEAK TOTAL	PM PEAK IN	PM PEAK OUT	TRAFFIC FACILITY IMPROVEMENTS TO BE ASSURED UNLESS OTHERWISE NOTED
1-4											
	Single-Family Dwelling	750 DU	10 /DU	7,500	600	120	480	750	525	225	(1) Complete circulation loop of four lanes of El Camino Real from Carmel Valley Road South to Carmel Mountain Road, and Carmel Mountain Road west to Sorrento Valley Road. Improvements to be as required by Tenative Tract Map.
	Multiple-Family Dwelling	340 DU	8 /DU	2,720	218	44	174	272	190	82	(2) Install traffic signal at El Camino Real and Carmel Valley Road.
	Office	312 KSF	20 /KSF	6,240	811	730	81	874	175	699	(3) Install two traffic signals on Carmel Valley Road at Interstate 5 Ramp Intersections.
	Industrial	323 KSF	15 /KSF	4,845	533	480	53	581	116	465	(4) Widen on-ramps and off-ramps at Interstate 5/Carmel Valley Road Interchange.
	Park	14.5 AC	50 /AC	725	29	15	15	58	29	29	(5) Install traffic signal, Sorrento Valley Road and Carmel Mountain Road.
	Retail	3 KSF	72 /KSF	216	9	5	3	24	12	12	(6) Perform revised computerized travel forecast in conjunction with North City West, to the satisfaction of the City Engineer.
	Office/Corporate (a)	267 KSF	15 /KSF	4,005	601	541	60	601	60	541	(7) CIP 52-099.4, Sorrento Valley Road - Sorrento Valley Blvd. to 3300 feet northerly
											(8) Widen Carmel Valley Road to six lanes from I-5 to the realigned El Camino Real.
											(9) Construct El Camino Real to six lanes from Carmel Valley Road south to Carmel Mountain Road. Construct Carmel Mountain Road to six lanes from El Camino Real west to Sorrento Valley Blvd.
											(10) CIP 53-032.0, Sorrento Valley Blvd. bridge over Los Penasquitos Channel.
											(11) CIP 53-304.0, Sorrento Valley Road - Sorrento Valley Blvd. to I-805.
											(12) Widen/construct Carmel Valley Road to six lanes from El Camino Real to 300 feet east of Carmel Country Road and with four lanes east to the North City West Boundary. Construct a four lane road from the North City West boundary to Interstate Route 15. (the latter is a regional transportation improvement) OR Construct direct freeway ramp conenctions (northbound offramp and southbound onramp) at Interstate Route 5 and Carmel Valley Road and widen I-5 between I-805 and Carmel Valley Road (regional transportation improvement)
	TOTALS			26,251	2,800	1,934	867	3,160	1,107	2,052	

(a) Represents American Assets property. Additional development beyond the 4,005 ADT has occured. A transfer of 160 ADT from Harry O. Cooper to American Asset, Inc. was executed to allow the development threshold to be exceeded.

PHASE	LAND USE	AMOUNT	RATE	TOTAL ADT*	PEAK HOUR TRIPS AM PEAK TOTAL	AM PEAK IN	AM PEAK OUT	PM PEAK TOTAL	PM PEAK IN	PM PEAK OUT	TRAFFIC FACILITY IMPROVEMENTS TO BE ASSURED UNLESS OTHERWISE NOTED
5											
	Single-Family Dwelling	1215 DU	10 /DU	12,150	972	194	778	1,215	851	365	(13) Extend Carmel Mountain Road to eastern subdivision boundary. This improvement will be tied to the construction of the shopping center in the eastern portion of the project.
	Multiple-Family Dwelling	650 DU	8 /DU	5,200	416	83	333	520	364	156	(14) Widen /construct Carmel Valley Road to six lanes from El Camino Real to 300 feet east of Carmel Country Road and with four lanes east to the North City West boundary. Construct a continuous four lane road from the North City West boundary east to I-15. (the latter is a regional transportation improvement) AND Construct direct freeway ramp conenctions (northbound offramp and southbound onramp) at Interstate Route 5 and Carmel Valley Road and widen I-5 between I-805 and Carmel Valley Road (regional transportation improvement) AND Construct freeway ramps at Carmel Mountain Road and Interstate Route 5
	Office	475 KSF	20 /KSF	9,500	1,235	1,112	124	1,330	266	1,064	
	Industrial	323 KSF	15 /KSF	4,845	533	480	53	581	116	465	
	Park	14.5 AC	50 /AC	725	29	15	15	58	29	29	
	Retail	120 KSF	72 /KSF	8,640	346	207	138	950	475	475	
	Office/Corporate	303.4 KSF	15 /KSF	4,551	683	614	68	683	68	614	
	Visitor Serving	36.58 KSF	20 /KSF	732	110	99	11	110	11	99	
	School	4 AC	60 /AC	240	62	37	25	12	4	8	
	TOTALS			46,583	4,385	2,841	1,544	5,459	2,184	3,275	

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PHASE	LAND USE	AMOUNT	RATE	TOTAL ADT*	PEAK HOUR TRIPS						TRAFFIC FACILITY IMPROVEMENTS TO BE ASSURED UNLESS OTHERWISE NOTED
					AM PEAK			PM PEAK			
					TOTAL	IN	OUT	TOTAL	IN	OUT	
6											
	Single-Family Dwelling	1334 DU	10 /DU	13,340	1,067	213	854	1,334	934	400	
	Multiple-Family Dwelling	650 DU	8 /DU	5,200	416	83	333	520	364	156	
	Office	732 KSF	20 /KSF	14,640	1,903	1,713	190	2,050	410	1,640	
	Industrial	323 KSF	15 /KSF	4,845	522	454	68	564	124	439	
	Park	14.5 AC	50 /AC	725	29	15	15	58	29	29	
	Retail	115 KSF	72 /KSF	8,280	331	199	132	911	455	455	(15) Construct Vista Sorrento Parkway as a four lane major street between Sorrento Valley Blvd and Carmel Moutain Road. Extend Carmel Mountain Road from El Camino Real to the eastern community plan boundary.
	Day Care (6)	3 KSF		0	0	0	0	0	0	0	
	Office/Corporate	440.066 KSF	15 /KSF	6,601	990	891	99	990	99	891	
	Visitor Serving	36.58 KSF	20 /KSF	732	110	99	11	110	11	99	
	School	4 AC	60 /AC	240	62	37	25	12	4	8	(16) Construct subdivision improvements as required by phasing and the City Engineer.
	TOTALS			54,603	5,431	3,704	1,727	6,548	2,430	4,118	

PHASE	LAND USE	AMOUNT	RATE	TOTAL ADT*	PEAK HOUR TRIPS					
					AM PEAK			PM PEAK		
					TOTAL	IN	OUT	TOTAL	IN	OUT
7										
	Single-Family Dwelling	1334 DU	10 /DU	13,340	1,067	213	854	1,334	934	400
	Multiple-Family Dwelling	770 DU	8 /DU	6,160	493	99	394	616	431	185
	Office	950 KSF	20 /KSF	19,000	2,470	2,223	247	2,660	532	2,128
	Industrial	400 KSF	15 /KSF	6,000	660	594	66	720	144	576
	Park	14.5 AC	50 /AC	725	29	15	15	58	29	29
	Retail	170 KSF	72 /KSF	12,240	490	294	196	1,346	673	673
	Day Care (6)	3 KSF		0	0	0	0	0	0	0
	Office/Corporate	440,066 KSF	15 /KSF	6,601	990	891	99	990	99	891
	Visitor Serving	36.58 KSF	20 /KSF	732	110	99	11	110	11	99
	School	4 AC	60 /AC	240	62	37	25	12	4	8
	TOTALS			65,038	6,371	4,465	1,906	7,846	2,857	4,989

NOTES:

1. Improvements to be completed, under contract, bonded or scheduled in the City Capital Improvements Program, or programmed in the State Transportation Improvement Program to the satisfaction of the City Engineer before exceeding the allowable levels of development in the columns above.

2. It should be noted that this plan is intended to serve as a guideline for sequential development of street improvements. Because the geographic order of development is not certain, it will be necessary to review annually and revise this phasing plan in order to reflect current land development proposals and actual trip generation rates and trip distribution.

3. All streets within the boundaries of the Community Plan shall be improved to full width as part of the development on adjacent parcels. Traffic signals shall be constructed as required via the Tentative Tract Map.

4. Total permitted ADT by land use can be adjusted so that ADT's are transferred from one land use to another so long as the listed total ADT's from all land use is not exceeded, subject to additional studies as required by the City Engineer. The additional studies must evaluate if the uses different from those asumed in this plan invalidate the ADT and/or peak hour traffic calculations and therefore, the phasing of transportation improvements.

5. Thresholds for each section are governed by the issuance of building permits and not the recordation of final maps.

6. The 3 KSF of Day Care is a component of the industrial uses in the project. Its traffic generation is included in the industrial uses.